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# Understanding Assessment: The Student Experience of Criterion-Referenced Assessment in a Public Relations Course

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## Abstract

*Criterion-referenced assessment (CRA) involves designing assessment tasks in line with subject goals, identifying skills to be demonstrated within an assessment task, assigning relative weights to, and describing each relative skill/criterion (Carlson, MacDonald, Gorely, Hanrahan, & Burgess-Limerick, 2000). In order to increase transparency and encourage assessment for learning, CRA was embedded within an undergraduate introductory public relations unit in 2004. In 2005, research was undertaken to explore the ongoing effectiveness of this assessment paradigm and to identify how more than 150 students used the CRA approach to enhance their learning. The findings of this study show continued strong use of and support for CRA, which has encouraged implementation of CRA across the public relations sequence.*

Keywords: Assessment, Criteria, Standards

## LITERATURE REVIEW

Assessment is a central component to education and learning outcomes. Formative, summative, and evaluative in nature (Hornby, 2003), assessment items are used to certify and grade student performance in line with subject or course objectives (Samuelowicz & Bain, 2002, as cited in Norton, 2004). Assessment allows students to demonstrate their understanding and application of knowledge and evaluate their performance in a course of study through feedback, which supports current and future learning.

A number of forces have encouraged the tertiary education sector to pay greater attention to assessment practices. Some of these forces are led by student concerns and others by lecturer observations or institutional decisions. For example, in 1997, the Quality Assurance Agency was established in the United Kingdom to define academic standards. One of its main contributions to higher education was the support for a standards based assessment system to ensure transparency, equity, validity and reliability.

While institutions have responded to calls for increased quality, students themselves also seek increased transparency in and understanding of the assessment process. A number of studies have shown limited correlation between student and tutor understanding of the same tasks (Norton, 2004). This lack of agreement affects the manner in which students approach the task as well as the range of marks awarded by tutors in a subject. Students hold assessment feedback as critical to improving understanding and performance. According to Rust, O'Donovan and Price (2005), appropriate feedback requires student and lecturer knowledge of particular standards, comparison of these standards to the student's work, and the taking of action to close the gap between these two. Without appropriate feedback, student learning outcomes are limited.

Research has also show that lecturers recognise that a response to institutional and student calls for transparency and accountability in the setting and grading of assessment tasks is required. In a study of honours programs, Tariq, Stefani, Butcher and Heylings (1998) showed that variation in grading was based on student performance as well as external factors including marker expertise or the level of assistance provided to students by lecturers. Biggs (2001) calls for increased reliability in assessment, a process which requires consistent judgements made by markers and clear understanding of assessment tasks. While many educators advocate transparent assessment practice, Hornby (2003) cautions its effect on markers and suggests that markers' attempts to satisfy students, external examiners and colleagues can influence the grade awarded.

Calls for transparency and equity have encouraged a number of universities to review normative assessment paradigms where grades are awarded based on a "student's performance in the subject relative to their peers' performance and following a normal distribution of grades" (Carlson et al, 2000, p. 104). Although normative assessment is easy to administer (Carlson et al, 2000), it does not reflect the nature or quality of teaching (Dunn, Parry & Morgan, 2002). In response, educators have called for more participative approaches (Reynolds & Trehan, 2000). Rust et al (2005) believe that a social constructivist approach to assessment overcomes existing problems in norm-based systems by encouraging the evolution of knowledge through participation from both students and educators.

## Criterion-Referenced Assessment

Criterion-referenced assessment is a holistic approach to teaching and learning that involves several key steps. CRA helps shift assessment from an instrumental purpose of awarding grades to an educational purpose that allows for feedback and student improvement (Carlson et al, 2000). This follows from Neil, Wadley and Phinn's (1999) belief that to be most effective CRA should involve content, process and skill competencies. CRA involves designing assessment tasks in line with subject goals, identifying skills to be demonstrated within assessment tasks, assigning relative weights to and providing detailed descriptions of each relative skill/criterion (Carlson et al, 2000). These criteria can either be developed by both students and educators or pre-set (Abbiss & Hay, 1992), and assist student understanding of what they have to do to achieve a specific grade (Hay, 1995). There are two main types of CRA systems: competence- and achievement-based assessment. Competence-based assessment measures student performance against the achievement at some minimal level and achievement-based assessment evaluates performance through comparison with predefined scales (Abbiss & Hay, 1992). This paper deals primarily with achievement-based CRA. This form of CRA allows students and lecturers to evaluate performance against a range of specified standards, which benefits student learning within individual subjects and across courses.

Calls for greater transparency and equity are in part resolved by CRA (Neil et al, 1999; Rust, Price & O'Donovan, 2003). From an educator perspective, CRA requires clear learning objectives and well designed assessment items (Abbiss & Hay, 1992) with alignment across all parts of the curriculum (Rust et al, 2005). The participative process of CRA builds student and lecturer understanding of assessment requirements as both parties constantly refer to criteria during a semester (Carlson et al, 2000). Carlson et al's (2000) study found that the shared understanding of criteria by staff and students was central to the success of CRA. Other authors also agree that CRA leads to stronger student learning outcomes based on a better understanding of grade and performance requirements (Abbiss & Hay, 1992; Neil et al, 1999).

An additional benefit of CRA is its ability to improve the style and nature of feedback provided to students (Abbiss & Hay, 1992). Common in CRA systems is the use of assessment matrices or rubrics which list the criteria for the particular piece of assessment and articulate gradations of quality for each criterion to match the grading system in use (Andrade, 2005). These rubrics form a major component of student feedback, either in isolation or in conjunction with other written or oral feedback. In a major study of CRA implementation in business studies at Oxford Brookes University in the United Kingdom, O'Donovan, Price and Rust (2001) found that the rubrics in isolation were not seen as sufficient forms of feedback by students. The rubric was seen by students as of limited practical benefit unless presented as part of a multifaceted approach including more detailed written feedback and post assessment discussion.

While CRA is held to be a transparent process, Sadler (2005) argues that even when assessment criteria are used, teacher judgements can be hidden from student view. For example, Hay (1995) argues that markers may assess one student's performance in different ways but reach the same overall mark. In an earlier study, Abbiss and Hay (1992) suggested that training could overcome such situations. A further criticism by Hay (1995) is that CRA's inflexibility encourages students to conform to criteria rather than experiment with creativity, which may not be rewarded by criteria descriptions. Norton (2004) concurs and argues that in some situations, students could use assessment criteria in a formulaic manner and focus on criteria descriptions rather than the macro-level task requirements. At a course level, Sizmur and Sainsbury (1997) believe that CRA has made promises it is unable to keep in relation to the demands of complex curriculum.

This study adopts the framework of Norton (2004) who believes that "assessment criteria can be used to encourage both meaningful learning and active engagement through the simple mechanism of reconceptualizing them as "learning criteria" (p. 689). For the purposes of this study, CRA is used as a learning tool for students.

## **Public Relations Assessment Practice**

A review of public relations education research has shown that despite advances in the philosophies and practice of assessing student learning, research in assessment is limited. According to Stacks, Botan and Turk (1999) research into public relations education has been fragmented and focused on the needs of practitioners or educators. Recent research has identified the significant gaps between desired and actual outcomes of entry-level graduates in the opinions of practitioners (Neff et al, 1999); established the desired skill sets of graduates (Brown & Fall, 2005; Motschall & Najor, 2002; Stacks et al, 1999; Van Leuven, 1999); and explored the impact of educational initiatives including problem-based learning (Slattery, 2002) and study guides (Lubbers, 2002) on student performance. Very few studies have explored in detail assessment strategies in public relations with Gregory, Yeomans and Powell (2003) as a notable exception.

In her introduction to a special education issue of *Public Relations Review*, Badaracco (2002) commented that "if we are doing our jobs and keeping up with the pace of change, and we are doing something innovative, then the discipline of public relations can contribute to the body of literature on teaching" (p. 136). Badaracco (2002) argued that in any pre-professional curriculum, educators use industry standards to evaluate class content and student performance. Public relations employers favour portfolios as assessment items whereas educators stress the need for assessment items that specifically evaluate learning objectives (Stacks et al, 1999) and could include assignments and tests (Motschall & Najor, 2002). However, despite recognition of the importance of assessment, Stacks et al's (1999) research into a range of educational factors including assessment of student outcomes and learning found that only 42.8 percent of respondents had assessment plans in place.

Despite this limited use of assessment plans, the literature identifies two assessment-related studies. In the United States, King (2001) encouraged educators create grading rubrics to improve consistency and guide student feedback which is closely

aligned to the principles of CRA. King (2001) argued that the rubrics could be shared in advance with students or used only by markers. In the United Kingdom, Gregory et al (2003) used criterion-based assessment behind the introduction of a peer assessment process into a group assignment within a public relations module at Leeds Metropolitan University. The criterion-based assessment required students to assess each other on a range of criteria that measured individual contribution (Gregory et al, 2003). The process encouraged student ownership, improved perceptions of unfairness in group marks, and increased student responsibility for learning outcomes (Gregory et al, 2003).

This study aims to extend existing research into criterion-based assessment and in turn, contribute to current practices in public relations education.

## **METHODOLOGY**

Following the study of O'Donovan, Price and Rust (2001, 2003), this paper undertook to examine how students used and benefited from CRA. The study was set in an introductory undergraduate public relations unit, which was using CRA for a third consecutive semester. The unit examined students against three criteria: problem identification, research and decision-making; application and evaluation; and communication and interpersonal skills. These criteria were mapped to the two major assignments for the unit: a proposal for an issue brief on a contemporary business issue and a fully developed issue brief including significant media analysis. Each criterion was weighted based on its importance to the task. Students were graded on a 1 to 7 scale with 7 representing a high distinction and 1 representing a fail. Descriptive performance standards for each of the criteria at each possible grade were written and presented as an assessment rubric. In its initial conception, the assessment rubric was tested by full time and sessional staff on a sample of papers representing different grades achieved in previous semesters. Based on the feedback of these assessors and in its use after three semesters, the descriptive performance standards were amended to ensure understanding of and agreement on the appropriate standard to be reached at each level.

An embedding strategy was designed for the unit to ensure the transfer of both explicit and tacit knowledge through shared understanding of expectations (Nonaka, 1991). An assessment package was prepared to explain the assessment paradigm to students. A description of CRA principles was provided as well as a detailed description of each assignment. The assessment package included the assessment rubrics for each assignment. It also provided space for the student to map their performance across the semester on each of the criteria and reflect on their performance in the assignments. The assessment package was made available to all students through an online teaching site for the unit.

The assessment processes and rubrics were discussed with students first by the lecturer and then by each of the tutors. A tutorial exercise was designed for students to complete before the submission of each assignment which involved the students marking a sample assessment piece using the assessment rubric. Students then discussed their grading structure in the tutorial session and the tutors showed the students the assessor's grades and explained any differences that appeared. Sadler (1987) suggests the combination of verbal descriptors and exemplars helps assessors and students overcome the inherent imprecision of verbal descriptors and also helps the students acquire strong evaluation skills. A follow up tutorial session discussed students' performance on the first piece of assessment and students had the opportunity to meet with their tutors to get a more detailed explanation of the grading process.

A questionnaire was designed to capture the student perspective on the use of CRA in the unit and its impact on their learning strategies. The questionnaire allowed students to identify how they had used the assessment rubric in planning, writing and reviewing their assignment and how feedback on the assignment using the assessment rubric helped them identify their current performance and consider strategies for improvement. Likert scales were used to allow the students to demonstrate their strength of agreement or disagreement with particular statements. The questionnaire also captured key demographic information and any prior experience with CRA.

The questionnaire was administered in a lecture session towards the end of the semester. All students enrolled in the unit were eligible to complete the questionnaire. The unit included full and part time public relations students as well as students from other disciplines who were taking the unit as an elective. In line with the university's profile, the students were both domestic and international and represented both school leavers and more mature age students returning to university after a period of absence from formal education. All students studied on campus. Completion of the questionnaire was anonymous and optional in line with the University's ethics approval for research on current students.

The questionnaires were completed and the data analysed using SPSS. Frequency counts and descriptive statistics were calculated for relevant variables with chi-square analyses and t-tests conducted where appropriate.

## **RESULTS**

Of the 264 students enrolled in the unit, 158 completed and returned the questionnaire representing a 60 percent response rate. Female students represented 81 percent of the responding sample, in line with a strong female skew across enrolments in

public relations internationally. Of the sample, 47 percent of students in their first semester of university study and 24 percent were in their final year with 67 percent identifying prior experience with CRA.

## CRA and assignment preparation

Approximately 70 percent of students agreed or strongly agreed that the rubric was useful in planning, writing and reviewing their assignment prior to submission while around 20 percent of students held a neutral view (see Table 1).

**TABLE 1: STUDENT REFLECTIONS ON USE OF RUBRIC IN ASSIGNMENT DEVELOPMENT AND REVIEW**

	<b>Strongly Disagree</b>		<b>Disagree</b>		<b>Neutral</b>		<b>Agree</b>		<b>Strongly Agree</b>		<b>Total</b>	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Planning assignment	4	2.5	7	4.4	37	23.4	84	53.2	26	16.5	<b>158</b>	<b>100.0</b>
Writing assignment	4	2.5	3	1.9	41	26.0	79	50.0	31	19.6	<b>158</b>	<b>100.0</b>
Reviewing assignment	4	2.5	5	3.2	35	22.2	72	45.6	42	26.6	<b>158</b>	<b>100.0</b>

Students were asked to identify how they had used the assessment rubrics to assist their assignment development. Options included using the assessment rubric from the beginning with constant reflection through the preparation period, starting the assignment and then using the assessment rubric to check performance, completing the assignment and then using the rubric to check before submission, and not using the rubric.

The majority of students (n=67) used the rubric after they had started the assignment to check that they were on the right track before completing the assignment. The next most common approach was option one with approximately one third of students (n=52) using the rubric to reflect on the assignment before commencing work and then constantly referring to the rubric in the assignment preparation (see Table 2 for full details). Approximately 16 students, which equated to over 10 percent of the sample, claimed to have not used the rubric at all.

**TABLE 2: STUDENT REFLECTIONS ON USE OF RUBRIC AS COMPLETION GUIDE**

	<b>Frequency</b>	<b>%</b>	<b>Cumulative %</b>
Rubric used from start and constant reference	52	33.3	33.3
Rubric used after assignment started and then throughout to ensure on track	67	43.0	76.3
Rubric used after assignment completed but before submission	21	13.4	89.7
Rubric not used	16	10.3	100

## Usefulness of CRA

CRA supported students' ability to engage with their own learning practices by identifying their strengths and weaknesses. Approximately 69 percent of students suggested that they agreed or strongly agreed that they now understood how to improve their performance by seeing how the assessor had graded their assessment on each of the criteria using the specific performance levels (see Table 3 for full details). More than 70 percent of students said they could now identify their strengths and 67.9 percent of students their weaknesses in performance.

**TABLE 3: STUDENT REFLECTIONS ON USE OF RUBRIC TO IMPROVE PERFORMANCE**

	<b>Strongly Disagree</b>		<b>Disagree</b>		<b>Neutral</b>		<b>Agree</b>		<b>Strongly Agree</b>		<b>Total</b>	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Understands how to improve	3	1.9	10	6.4	24	15.3	88	56.7	25	16.0	<b>156</b>	<b>100.0</b>
Can identify strengths	2	1.3	11	7.1	31	19.9	87	55.8	25	16.0	<b>156</b>	<b>100.0</b>
Can identify weaknesses	3	1.9	6	3.9	29	18.6	94	59.6	13	8.3	<b>157</b>	<b>100.0</b>

Critical reflection is an integral self-learning mechanism for students. Further analysis of the data showed significant correlations between student identification of strengths and finding the CRA matrix useful in assignment planning ( $r = .34$ ,  $N = 156$ ,  $p < .0001$  (two-tailed)); assignment writing ( $r = .37$ ,  $N = 156$ ,  $p < .0001$  (two-tailed)); and assignment review ( $r = .17$ ,  $N = 156$ ,  $p = .03$  (two-tailed)). Similarly, the analysis showed significant correlations between student identification of strengths and finding the CRA matrix useful in assignment planning ( $r = .30$ ,  $N = 156$ ,  $p < .0001$  (two-tailed)); assignment writing ( $r = .32$ ,  $N = 156$ ,  $p < .0001$  (two-tailed)); and assignment review ( $r = .25$ ,  $N = 156$ ,  $p = .03$  (two-tailed)).

## DISCUSSION

The majority of undergraduate public relations students responded positively to CRA and supported its contribution to assignment preparation and review, and self reflection. However, when compared to findings from Xavier and Mehta's (2006) earlier study, which was conducted in 2004, the results suggest a drop in student use and evaluation of CRA.

In 2004, 80 percent of students agreed or strongly agreed that the assessment rubric was useful in planning, writing and reviewing assignments. In 2005, this percentage dropped to 70 percent. Part of that drop is attributed to an increase in the number of neutral responses. The strong embedding strategy utilised in this unit meant that CRA approaches informed all parts of the teaching and learning activities. Therefore, students may have placed less emphasis on the actual rubric as the learning tool as they had gained important knowledge of criteria and standards in lectures and tutorials and through sample assessment exercises. Other reasons could relate to student ambivalence towards CRA given that 67 percent of the 2005 cohort had used CRA before, as compared to 55 percent in the 2004 cohort. As a new approach in 2004, students were more likely to compare their CRA learning experience against the normative system offered in other university units. In 2005, it is likely that the students had already been exposed to CRA in other university units. Therefore, the students may have expected the experience they received.

Further differences between the 2004 and 2005 samples were found in relation to the use of assessment rubrics in preparing their assignments. While a close to equal percentage used the rubric from the start of the assignment and as a constant source of reference, 10 percent less students used the rubric only after they started to work on the assignment and 10 percent more students did not use the rubric at all. The increase in the non-use of the rubric is of concern given the role of assessment in building student understanding of public relations theory and practice. Further comparison in this area showed that while students in 2005 were equally able to understand how to improve their work and identify strengths, they were less confident in being able to identify weaknesses. While the rubric itself may not have been perceived to assist some of these students, perhaps written or verbal feedback from their tutor was used to inform their understanding of areas for improvement.

Sadler (1987) suggests "one of the conditions necessary for the intelligent use of feedback is that learners know not only their own levels of performance but also the level or standard aspired to or expected" (p. 196). The assessment rubrics made clear to students the level of their performance and provided the detailed descriptors to guide improved performance. Both these elements were important to the self-learning practice. However, in order for self-learning to occur, there must be some willingness on behalf of the student or a perception that the assessment practices in the unit are useful to them.

As this research is part of a longitudinal study, the authors will continue to collect student evaluation and use of CRA and compare findings. Any trends identified will be further explored through appropriate methodologies. For example, given that CRA has been running across all units in the public relations major, confirmatory data could be gathered from all students across the major. Research from the perspective of the teaching teams will also be conducted to understand the perceived contribution of CRA to student learning outcomes.

CRA provides an assessment paradigm to increase transparency in assessment processes for both educators and students and to enhance the learning experience by encouraging assessment 'for' learning as well as 'of' learning. While the education literature establishes its use in a range of disciplines including teaching and geography, this series of studies is of particular benefit to public relations and business educators. Further research in this area across a range of disciplines will help enhance assessment practices which are a critical component to student learning and the academy's accountability to stakeholders.

## References

- Abbiss, J., & Hay, I. (1992). Criterion-referenced assessment and the teaching of geography in New Zealand Universities'. *New Zealand Journal of Geography*, 94, 2-5.
- Andrade, H. G. (2005). Teaching with rubrics: The good, the bad and the ugly. *College Teaching*, 53(2), 27-30.
- Badaracco, C. H. (2002). How we teach: An introduction to this special issue on innovative pedagogy. *Public Relations Review*, 28, 135-136.
- Biggs, J. (2001). Assessment of student learning: Where did we go wrong? *Assessment Update*, 13(6), 6-9.
- Brown, A., & Fall, L. T. (2005). Using the port of entry report as a benchmark: Survey results of on-the-job training among public relations internship site managers. *Public Relations Review*, 31, 301-304.

- Carlson, T., Macdonald, D., Gorley, T., Hanrahan, S., & Burgess-Limerick, R. (2000). Implementing criterion-referenced assessment within a multi-disciplinary university department. *Higher Education Research and Development*, 19(1), 103-116.
- Dunn, L., Parry, S., & Morgan, C. (2002). *Seeking quality in criterion referenced assessment*. Paper presented at the Learning Communities and Assessment Conference: Connecting Research with Practice, University of Northumbria.
- Gregory, A., Yeomans, E., & Powell, J. (2003). Peer assessment and enhancing student learning. In R. Kaye & D. Hawkrigge (Eds.), *Learning and teaching for business: Case studies in successful innovations*. London: Kogan Page.
- Hay, I. (1995). Communicating geographies: Development and application of a communication instruction manual in the geography discipline of an Australian university. *Journal of Geography in Higher Education*, 19(2), 159-176.
- Hornby, W. (2003). Assessing using grade-related criteria: A single currency for universities. *Assessment and Evaluation in Higher Education*, 28(4), 437-456.
- King, C. M. (2001). The write stuff: Teaching the introductory public relations writing course. *Public Relations Review*, 27, 27-46.
- Lubbers, C., A. (2002). Using alternative teaching techniques to enhance student performance in the traditional introductory public relations course. *Public Relations Review*, 28, 157-166.
- Motschal, M., & Najor, M. A. (2001). The client-centered approach as a foundation for teaching the introductory course in public relations. *Public Relations Review*, 27, 3-25.
- Neff, B. D., Walker, G., Smith, M. F., & Creedon, P. J. (1999). Outcomes desired by practitioners and academics. *Public Relations Review*, 25(1), 29-44.
- Neil, D. T., Wadley, D. A., & Phinn, S. R. (1999). A genetic framework for criterion-reference assessment of undergraduate essays. *Journal of Geography in Higher Education*, 23(3), 303-326.
- Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, 96-104.
- Norton, L. (2004). Using assessment criteria as learning criteria: A case study in psychology. *Assessment and Evaluation in Higher Education*, 29(6), 687-702.
- O'Donovan, B., Price, M., & Rust, C. (2001). The student experience of criterion-referenced assessment. *Innovations in Education and Teaching International*, 38(1), 74-85.
- Reynolds, M., & Trehan, K. (2000). Assessment: A critical perspective. *Studies in Higher Education*, 25(3), 264-278.
- Rust, C., O'Donovan, B., & Price, M. (2005). A social constructivist assessment process model: How the research literature shows us this could be best practice. *Assessment and Evaluation in Higher Education*, 30(3), 231-240.
- Rust, C., Price, M., & O'Donovan, B. (2003). Improving students' learning by developing their understanding of assessment criteria and processes. *Assessment and Evaluation in Higher Education*, 28(2), 147-164.
- Sadler, D. R. (2005). Interpretations of criteria-based assessment and grading in higher education. *Assessment and Evaluation in Higher Education*, 30(2), 175-194.
- Sadler, R. (1987). Specifying and promulgating achievement standards. *Oxford Review of Education*, 13(2), 191-209.
- Sizmur, S., & Sainsbury, M. (1997). Criterion referencing and the meaning of national curriculum assessment. *British Journal of Education Studies*, 45(2), 123-140.
- Slattery, K. L. (2002). Loyalty, harm and duty: PBL in a media ethics course. *Public Relations Review*, 28, 185-190.
- Stacks, D. W., Botan, C. H., & Turk, J. V. (1999). Perceptions of public relations education. *Public Relations Review*, 25(1), 9-28.
- Tariq, V. N., Stefani, L. A. J., Butcher, A. C., & Heylings, D. J. A. (1998). Developing a new approach to the assessment of project work. *Assessment and Evaluation in Higher Education*, 23(3), 221-241.
- Van Leuven, J. K. (1999). Four new competencies for majors. *Public Relations Review*, 25(1), 77-85.
- Xavier, R., & Mehta, A. M. (2006). *Increasing transparency: Utilising criterion-referenced assessment to enhance student learning in public relations*. Paper presented at the Australia and New Zealand Communication Association, 5-7 July, Adelaide, South Australia.